### Tsunami Preparedness



# Tsunami Safety For Boaters



- 1. Be aware of tsunami facts. This knowledge could save your life and those of your family and friends.
- 2. Find out if you live, work, play or commute in a coastal, low-lying area or coastal evacuation zone.
- 3. Follow the advice of your local officials. Do not return home after a tsunami event until officials say that it is safe.
- 4. Stay away from bodies of water if a tsunami advisory or watch is issued. If you are at the beach or near the ocean and you feel the earth shake, move immediately inland to higher ground.
- 5. Do not wait for a tsunami warning to be issued. Stay away from rivers and streams that lead to the ocean. Tsunami wave action and currents may travel upstream.
- 6. If there is a tsunami warning:
- And you live or work in a tsunami evacuation zone or are visiting an area that is prone to tsunamis, evacuate your home/work and take shelter on higher ground.
- And you are in school, follow the advice of teachers and school officials.
- And you are unable to quickly move inland, seek refuge in a high, multi-story, reinforced concrete building and go to the third floor or higher.
- 7. When evacuating, move in an orderly, calm manner to the evacuation site or to any safe place outside of your evacuation zone.

For more preparedness information, visit www.maineprepares.com and www.tsunami.gov

- 1. Since tsunami waves cannot be seen in the open ocean, do not return to port if you are at sea and a tsunami warning has been issued. Port facilities may become damaged and hazardous from debris. Listen to mariner radio reports for when it is safe to return to port.
- 2. Tsunamis can cause rapid changes in water level and unpredictable dangerous currents that are magnified in ports and harbors. Damaging wave activity can continue for many hours following the initial tsunami arrival. Contact the harbor authority or listen to mariner radio reports. Make sure that conditions in the harbor are safe for navigation and berthing.
- 3. Boats are safer from tsunami damage while in the deep ocean (greater than 200 fathoms, 1200 feet, 400 meters) rather than moored in a harbor. But, do not risk your life and attempt to move your boat into deep water if it is too close to wave arrival time. Anticipate slowdowns caused by traffic gridlock and hundreds of other boaters heading out to sea.
- 4. For a locally-generated tsunami, there will be no time to move a boat into deep water because waves can come ashore within minutes. Leave your boat at the pier and head to higher ground.
- 5. For a distant tsunami-generated wave, there will be more time (one or more hours) to secure or deploy a boat. Listen for official tsunami wave arrival time estimates and plan accordingly.
- 6. Most large harbors and ports are under the control of a harbor authority and/or a vessel traffic system. These authorities direct operations during periods of increased readiness, including the forced movement of vessels if deemed necessary. Keep in contact with authorities when tsunami warnings and advisories are issued.



1-800-452-8735 www.maineprepares.com

Your County Emergency Management Agency:

# Maine Tsunami Awareness



Are you prepared for when disaster hits?

#### PARTNERING PROGRAMS INCLUDE:

National Oceanic and Atmospheric Association

Maine Geological Survey:

Maine Department of Conservation

This document was prepared under a grant from NOAA.







### Being prepared means having a plan, staying informed, and helping others.



### What is a TSUNAMI?

Tsunamis are ocean waves generated by a sudden change of the ocean water level. This change can be caused by the movement of the ocean floor (earthquakes), by underwater or shoreline landslides or land slumps, volcanic eruptions, or large releases of gases from the ocean floor. Tsunamis can also be caused by the impact of a large comet or meteorite but this is very rare.

Meteo-tsunamis are tsunami-like events that are caused by unusual low-pressure weather patterns. Both tsunamis and meteo-tsunamis propel water and impact the coast in similar ways.

## Why are Tsunamis Dangerous?

As a tsunami crosses the deep ocean, it may be only a few feet or less in height. As the tsunami approaches the shore, the wave height increases and associated currents intensify, becoming a threat to life and property. There is usually little time to forecast the severity of a tsunami after one is generated. Large areas of coastline can be inundated by a tsunami.

#### A Tsunami:

- Is like a fast rising flood or an advancing wall of water and strikes with devastating force.
- Moves faster than you can run.
- Is a series of waves that may continue for hours. The first wave may not be the last or the most dangerous.

## Recent History Of Tsunamis in Maine

Tsunamis are not new to Maine and will likely happen again. Here are some events that are known to have occured and what caused them:

Nov. 08, 2008 - Boothbay Harbor
Cause: Suspected Meteorological

Jan. 06, 1994 - Corea

Cause: Meteorological

Nov. 18, 1929 - Grand Banks (off shore) Cause: Earthquake

Jan. 09, 1926 - Bass Harbor, Mount Desert Island
Cause: Landslide

Nov. 17, 1872 - North Haven, Fox Islands Cause: Earthquake

For more information on these events visit the library at: <a href="https://www.maineprepares.com">www.maineprepares.com</a>

#### **Facts About Tsunamis**

- Not every earthquake will generate a tsunami.
- A small tsunami at one beach may be a giant tsunami a few miles away.
- A tsunami can strike anywhere and at any time along the U.S. coastline.
- The only warning you may have is an earthquake.
- Tsunamis can reach the coast within minutes of an earthquake.

### Warning Signs of a Tsunami

- A strong earthquake, felt in a coastal area, that causes difficulty standing.
- A sudden unexpected rise or fall of the ocean tide or height.
- A loud, roaring sound (like an airplane or train) coming from the ocean.

## What do I do if I see these Warning Signs?

- Stay calm and aware of the situation around you.
- Immediately move to higher ground or into the upper floors of a tall, sturdy building and stay there.
- Do not drive keep roads open for emergency vehicles.
- Stay away from the beach until officials issue an "all clear."

#### Did you know...?

- In deep water, tsunami waves may reach speeds of 600 miles per hour.
- Currents associated with tsunamis may reach up to 35 miles per hour.
- Tsunamis may be generated from distant locations and may not be preceded by a local earthquake.

## **Tsunami Warning Center**Four Levels of Messaging

### Warning

- Danger
- Run for high ground
- Follow emergency instructions

### **A**dvisory

- Possible strong and dangerous local currents
- Stay tuned for local emergency guidance

#### Watch

- Potential danger
- Stay tuned for more information

### Information **S**tatement

- Relax
- No danger
- A distant ocean basin may be in danger

For more information about tsunamis:

www.tsunami.gov

